Berber Surgery and Sport in the Aurès Mountains.

(1) *Among the Hill Folk of Algeria: Journeys among the Shawia of the Aurès Mountains.* By M. W. Hilton-Simpson. Pp. 248. (London: T. Fisher Unwin, Ltd., 1921.) 21*s.* net.

(2) *Shooting Trips in Europe and Algeria: Being a Record of Sport in the Alps, Pyrenees, Norway, Sweden, Corsica, and Algeria.* By H. P. Highton. Pp. 237. (London: H. F. and G. Witherby, 1921.) 16*s.*

(1) THE gregarious nature of the British tourist is illustrated by Captain Hilton-Simpson's claim that during his excursions among the Algerian hills near Biskra, which he describes as one of the most popular tourist resorts of the whole world, his wife was the first European woman to be seen by many of the people of the adjacent hills. His journeys in the mountains of Aurès, the Mons Aurasius of the Romans, were conducted mainly to study the native surgery and make a collection of the instruments used for the Pitt-Rivers Museum, Oxford. The most valuable chapter in his book is the account of Berber surgery, which is not easily studied, as the French apply to the Northern Sahara the law that a fatal operation conducted by a man who is not medically qualified is manslaughter. Captain Hilton-Simpson, by gifts of drugs and surgical instruments, was able to gain the confidence of some of the native practitioners. He secured admission to some operations, and has collected much interesting information as to the methods of treatment. The most remarkable success is in trepanning.

The author has made seventeen visits to Algeria, so he knows the country well, and his book is a valuable record of contemporary native life in the remoter villages of the Southern Atlas. He refers to indications of a greater rainfall at the time of the Roman occupation, though the general evidence given in the book indicates that the climate in Roman times was much the same as it is to-day.

(2) The same district has been described from a very different point of view by Mr. H. P. Highton, a science master at Rugby. He, also, discarding the ways of the ordinary tourist, has devoted many of the generous holidays allowed at the public schools to shooting trips, in one of which he visited the mountains of Southern Algeria in quest of the Barbary sheep and the Dorcas gazelle. Other journeys were in chase of chamois in the Alps and the Pyrenees, of elk and reindeer in Norway and Sweden, and of moufflon in Corsica. Chamois-hunting he calls the prince of sport. His narratives are brightly written. He concludes with a defence of shooting based on the nature-red-in-tooth-and-claw principle, and the claim that, though animals suffer greatly from mental anguish when chased, as presumably in fox-hunting, they feel little physical pain. This line of argument is almost the opposite to that adopted by Roosevelt, based on the quickness with which wild animals forget sudden alarm.

The War and the Royal Engineers.

The Work of the Royal Engineers in the European War, 1914–19.

(1) *Water Supply.* Part I.: *General Development of Organization, Plant, and Works.* Pp. 54+32 pls.+2 maps. Part II.: *Operations.* Pp. 55-92+9 pls.+8 maps.

(2) *Bridging.* Pp. 87+33 pls.+3 maps.

(3) *Supply of Engineer Stores and Equipment.* Pp. 109.

(4) *The Signal Service in the European War of* 1914 *to* 1918. (*France.*) By R. E. Priestley. Pp. xvi+359+20 pls.

(Chatham: Secretary, R.E. Institute; W. and J. Mackay and Co., Ltd., 1921.)

(1) IN the last year of the war operations involving "concentrations of unexampled density could be successfully undertaken at short notice in any areas, and at the points most desirable for strategical or tactical reasons, without reference to the presence of water in or near the surface." The ways and means by which this result was achieved are well set forth in the work under review. Amongst them may be mentioned the erection of semi-permanent and extensive supply systems with head works and pipe-lines, such as those at Roosbrugghe, the free use of mechanical transport, and the extensive use of boring plant. Drills were used on a small scale in the chalk area in 1915, the air-lift pump soon giving a great impetus to boring operations. Portable air-compressor plants mounted on lorries visited a borehole and worked so long as was necessary to fill the local storage plants.

Scarcely less important than the supply of water was the purification of it, and full details of the methods used are given. Large purification plants did excellent work of a pioneer nature in supplying potable water from canals—in some cases through pipe-lines several miles in length.

(2) The need for heavy bridges was first experienced on the Aisne. From that time the history of bridging during the war was determined largely by the increasingly important rôle played by the heavy artillery and tanks, the maximum axle load to be carried rising from thirteen to thirty tons. With the aid of drawings and some excellent photographs, the various standard

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types of bridges evolved in the campaign are passed under review. One of the most remarkable types, from the point of view of lightness and ease of erection, was the Inglis bridge of identical bays of weldless steel tubes.

The chapter on temporary bridges is a really stirring account of typical bridging operations during the final advance of August to November, 1918. A succession of waterways had to be forced before each serious engagement. In one case a field company erected a trestle bridge of 80-ft. span within 500 yds. of the enemy line, completing it four hours before the attack was launched. No fewer than 539 heavy bridges were erected between August and November, 1918.

(3) The supply of stores necessarily developed not only in quantity, but also in variety, for "it came about that the R.E. were early regarded as the universal providers of everything that was not authorised equipment." By March 1919, more than 1,800,000 tons of R.E. stores of the most diverse nature had been sent over to the Western front. Road metal, camouflage, electric-light installations, and propaganda balloons, all figured in the lists. Constantly increasing experimental work on new devices was also carried out, and the statement of the results achieved is of considerable interest.

(4) This study of the nervous system of the Army in the recent war is the story of a service constantly "struggling with ever fresh developments and responsibilities: sometimes failing, more often succeeding, and always improving and learning." The need for continual adjustment of ideas and nimbleness of thought on the part of those directing the policy of signals has not ended with the war. Just as "the discovery of the magneto telephone by the General Staff was probably responsible for a revolution in staff methods as great as any that has ever occurred in the history of war," so may the developments of wireless telegraphy and telephony bring many new problems for the signal officer of the future. While recognising fully the strangle-hold that code and cipher exercised on the use of wireless during the greater part of the war, Major Priestley points out how, as shelling and bombing became more intense, wireless forced its way more and more into use and recognition. It is clearly his view that the signals of the future will be mainly wireless supported by line telegraphy and visual work.

Few remarks throw more light on the extent to which signals grew in complexity during the war and technical qualifications came to be required by front-line troops than the statement that at the end of the war, the battalion and battery signaller was expected to have more qualifications than those possessed by the line telegraphists of the Royal Engineers at the commencement of the war.

For its system of hastily improvising a large army this country paid the penalty that must needs accompany such a process. Had we been better organised to make full use of man-power and brain-power on a national emergency, Moseley could scarcely have been allowed to go to his gallant death at Gallipoli. He could have been so much more profitably employed in his corps either in developing wireless or in examining and combating the overhearing of telephone signals. Our slowness in the recognition of enemy overhearing, with all the unnecessary loss of life that it involved, is a natural sequel to our general unpreparedness for the great emergency of 1914.

Granted that we were not always first in the field in the early days of the war, we can, however, recognise fairly that lost time was well made up before the end. The close of the war found the Signal Service "efficient in its day and generation, as the *personnel* of the highly trained units of the original Expeditionary Force had been in theirs."

Our Bookshelf.

Nut Growing. By R. T. Morris. Pp. x+236. (New York: The Macmillan Co.; London: Macmillan and Co., Ltd., 1921.) 13*s.* net.

THERE is little of the dry manual about this useful volume. The author has a "message" to give to a world seeking new foodstuffs, and though he occupies forty pages in introducing the subject, his preliminary remarks are to the point and well worth reading by those interested. Briefly, the book is a practical guide to the commercial cultivation of trees bearing edible nuts, and is addressed to growers in America, where in recent years much attention has been given to this industry. The nuts dealt with include hickories, walnuts, hazels, chestnuts, pine nuts, and almonds. Reference is made to the devastation caused in the forests of American chestnut (*Castanea dentata*) by the fungus *Endothia parasitica*, which threatens to destroy the species unless resistant stocks can be discovered and successfully propagated. The author claims to have produced hybrids between this tree and the chinkapin (*Castanea pumila*) which are highly resistant to the fungus, and bear nuts of good size and quality. An important section on propagation deals with the practical aspects of nut cultivation, and has been written mainly with the object of describing a special system of grafting, which is clearly illustrated in a series of excellent plates.

A Handbook on Cotton and Tobacco Cultivation in Nyasaland: A Guide to Prospective Settlers. By J. S. J. McCall. Pp. 85. (Zomba, Nyasaland: The Government Printer, 1920.)

IT is greatly to be regretted that the late Mr. McCall did not long survive his promotion from the post of

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